Abstract of the disclosure

[172] A shareable application program interface (API) and network data model infrastructure which is used in combination with a relational database to provide data storage and processing functions for network data. The network data model is stored in relational tables that describe a set of nodes and links forming a network wherein each of node represents an object of interest and link represents a relationship between two nodes. A generic node table contains a row describing each node in the network, and a generic link table contains row data describing each link. In addition, a path table whose contents are commonly generated by network analysis procedures contains rows which describe corresponding paths each consisting of an alternating sequence of nodes and links. The sequence of links in each path are identified in a separate path-link table. The system provides two application program interfaces, a PL/SQL API and a Java API, which executing application programs to use stored procedures for creating the node and link tables, store data describing nodes and links in the tables, and perform standard operations on the network data.